

303 2.00

Work Order ID 89084

89084

August-21-12 1:11:34 PM

Item ID: D3912-1 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Eyebolt
 Start Date: 8/21/12 Start Qty: 8.00 *8* Cust Item ID:
 Required Date: 8/21/12 Req'd Qty: 8.00 *8* Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 12/08/22 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3912	B								

100 0.00
 100
 Doosan
 Doosan Lathe
 Memo
 TURN AS PER FOLIO FA871AND DWG
 Prog Rev: 8
 Dwg Rev: 8
 Deburr as required
 110 0.00
 QC2- Inspect parts off machine FAI/FAIB
 110
 QC
 Quality Control
 Memo

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge _____ _____ _____		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

Work Order ID 89084

89084

Page 2

August-21-12 1:11:34 PM

Item ID: D3912-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Eyebolt

Start Date: 8/21/12 Start Qty: 8.00

8

Cust Item ID:

Required Date: 8/21/12 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.00							
Quality Control									
130	Identify as per dwg & Stock Location: <u>144</u>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

B.A 12/10/06

8

0

8 8/12/10/09

12/10/09

12-10-7

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Picklist Print

August-21-12 1:11:33 PM

Page 1

Work Order ID: 89084

Parent Item: D3912-1

Parent Item Name: Eyebolt

Start Date: 8/21/12

Required Date: 8/21/12

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP RevA: New issue DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R2.000 303 ROUND BAR 2"		Purchased	No			100	f	30.0610	0.25	2.1052632			

Location

Loc Qty

Loc Code

MAT029

30.061

116656

1.427

116700

0.354

121846✓

4.28

122682✓

24

1.394
1.85

1.579

RR R-10.6

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

DART AEROSPACE LTD		Work Order:	89084
Description: Eyebolt		Part Number:	D3912-1
Inspection Dwg: D3912 Rev: B		Page 1 of 1	

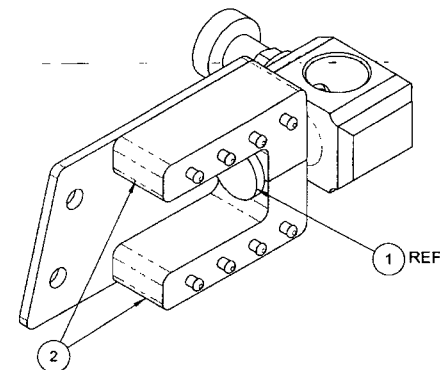
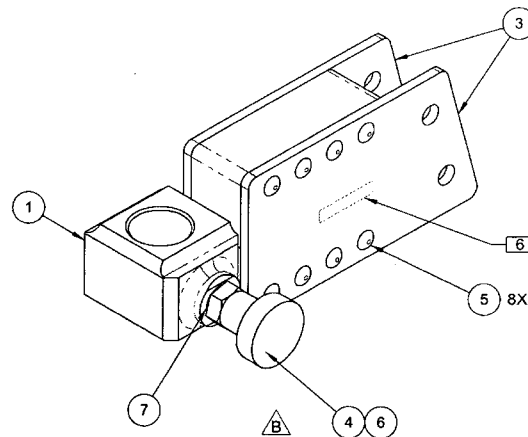
FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.13	+/-0.030	.180	/		RD .02	
Ø0.700	+/-0.010	.700	/			
Ø0.500	+/-0.010	.500	/			
0.90	+/-0.030	.875	/			
0.13 x 45°	+/-0.030 x 0.5°	.13	/			
0.22	+/-0.030	.22	/			
0.75	+/-0.030	.748	/			
0.970	+/-0.010	.968	/			
1.72	+/-0.030	1.719	/			
1.20	+/-0.030	1.199	/			
0.625	+/-0.010	.626	/			
2.23	+/-0.030	2.290	/			
R0.13	+/-0.030	.13	/			
R0.015	+/-0.010	.015	/			
0.625	+/-0.010	.621	/			
Ø0.650	+/-0.010	.651	/			
1.100	+/-0.010	1.099	/			
0.44	+/-0.030	.440	/			
R0.13	+/-0.030	.13	/			
1.00	+/-0.030	1.005	/			
0.25	+/-0.030	.25	/			
0.88	+/-0.030	.880	/			
0.11	+/-0.030	.11	/			
Ø0.719	+0.010/-0.000	.724	/			

Measured by:	RD	Audited by:	D.A	Preliminary Approval:	
Date:	2.10.06	Date:	12/10/06	Date:	

Rev	Date	Change	Revised by	Approved
A	10.06.07	New Issue	KJ	
B	10.08.09	Dimensions revised per Dwg Rev B	KJ	

ITEM	QTY -041	P/N	DESCRIPTION
*	X	D3912-041	EYEBOLT RECEIVER ASSY
1	1	D3912-1	EYEBOLT
2	2	D3912-3	EYEBOLT BLOCK
3	2	D3912-5	EYEBOLT PLATE
4	1	D3801-1	SPRING PLUNGER
5	8	MS20615-4M20	RIVET
6	1	MS21209-F615	HELICAL
7	1	NAS1149F0332P	WASHER



SUPPLEMENTAL ISO VIEW
(EYEBOLT PLATE REMOVED
TO SHOW INTERIOR FEATURES)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 89084 MJS
12/08/22

RELEASED
2010-07-16
wp

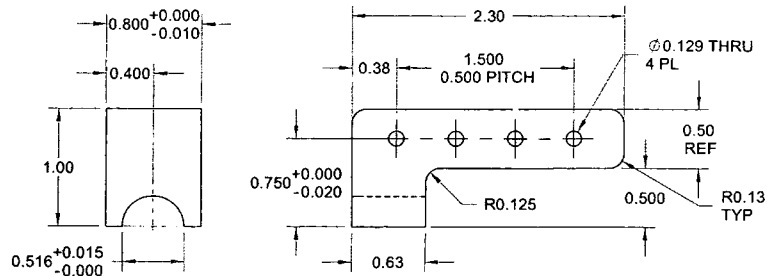
D3912-041 EYEBOLT RECEIVER ASSY

NOTES:

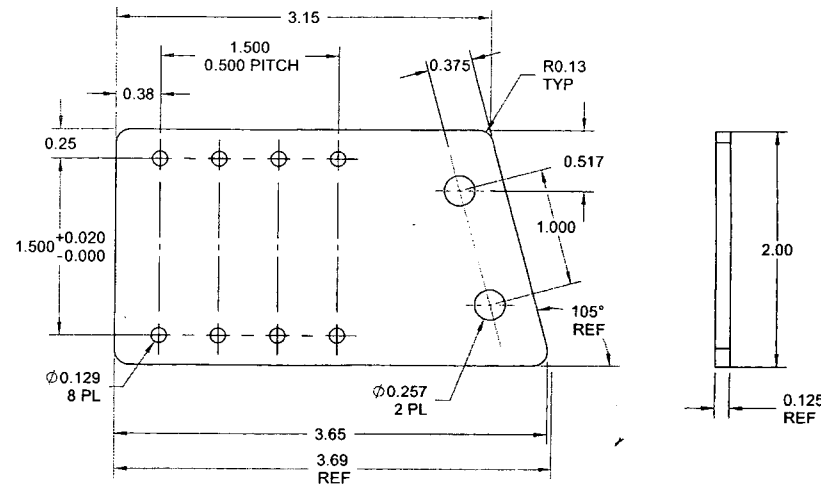
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D3912-041 USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -041: 1.58 lbs

B	D3801-1 WAS D3810-1 SPRING PLUNGER; D4028-041 RMV; MS21209-F615 WAS MS21209-C610 HELICAL; (1) WASHER NAS1149C0663R ADDED, BOSS ADDED TO D3912-1.	JPH	10.06.28
A	NEW ISSUE	JPH	10.03.04
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>ALS</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>JS</i>		
CHECKED	<i>JS</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>JS</i>	D3912	SHEET 1 OF 3
APPROVED	<i>JS</i>	TITLE	SCALE
DE APPR.	<i>JS</i>	EYEBOLT RECEIVER ASSY	NTS
DATE	10.06.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

29084



D3912-3 EYEBOLT BLOCK



D3912-5 EYEBOLT PLATE

NOTES:

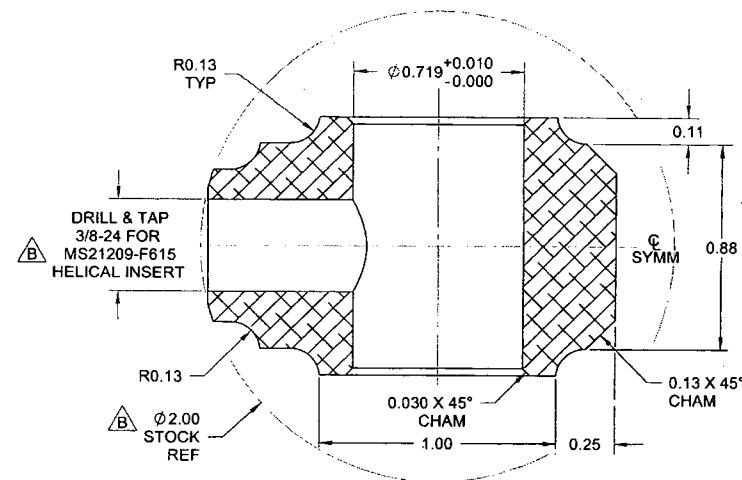
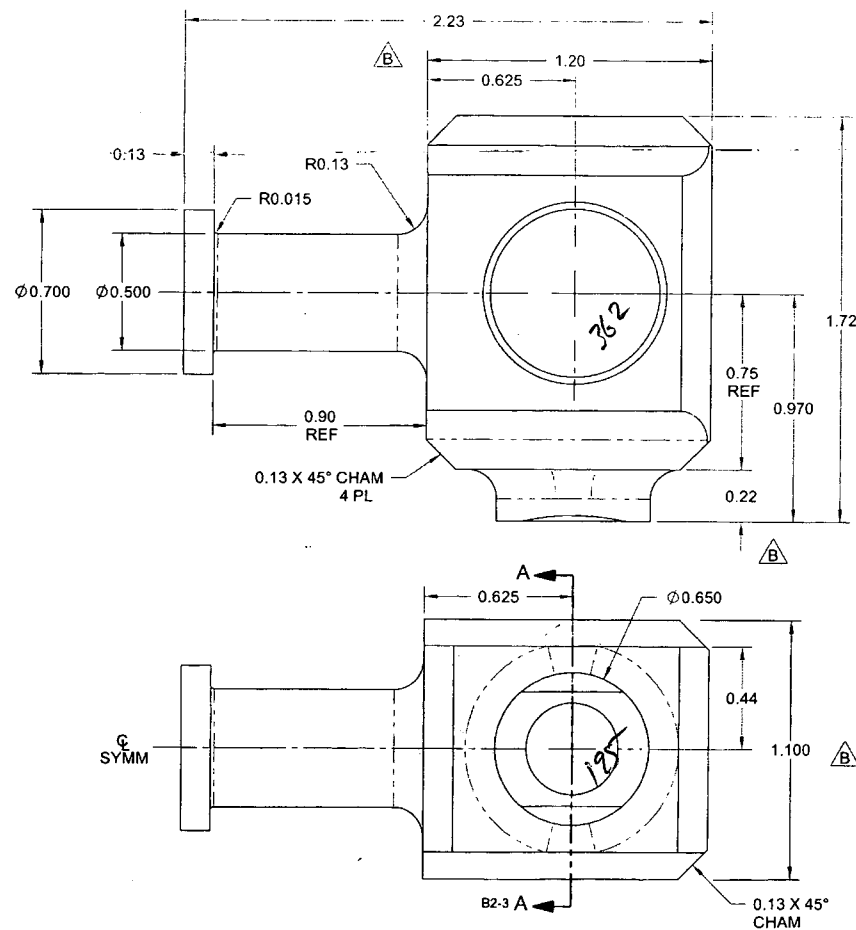
1) MATERIAL -3: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276
REF DART SPEC M303B OR M304B

-5: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B, 0.125 THK
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME 5A240
REF DART SPEC M303S11GA OR M304S11GA

- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ID AT ASSEMBLY
- 7) WEIGHT -3: 0.30 lbs
-5: 0.24 lbs

RELEASED
2010-07-16
JMD

DESIGN	ALS	DART AEROSPACE LTD	
DRAWN	ST	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ST	DRAWING NO.	REV. B
MFG. APPR.	ST	D3912	SHEET 3 OF 3
APPROVED	ST	TITLE	SCALE
DE APPR.	ST	EYEBOLT RECEIVER ASSY	NTS
DATE	10.06.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



SECTION A-A B6-3

RELEASE
2010-07-16

D3912-1 EYEBOLT

NOTES:

- NOTES
- 1) MATERIAL: 303/304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276 OR ASTM A582
REF DART SPEC M303R OR M304R
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: ID AT ASSEMBLY
 - 7) WEIGHT: 0.45 lbs

DESIGN	AIS	DART AEROSPACE LTD	
DRAWN	JH	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.	SJS	D3912	SHEET 2 OF 2
APPROVED	MD	TITLE	SCALE
DE APPR.	H	EYEBOLT RECEIVER ASSY	NTS
DATE	10.06.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PROVIDED AS GUIDANCE ONLY AND IT IS NOT TO BE USED FOR ANY PURPOSE OR CONSIDERING THAT IT	